

FRACTURE OF THE THIGH.

American Journal of Medical Science. Vol. 1 1859, page 355. Alonzo Chapin. The single perineal band, gives the pelvis an oblique inclination. 336 J. F. Flagg used in addition to the long splint of Desault a shorter splint for the inside of the leg reaching to the perineum. 357 Chapin has the cross-piece at the foot of Flagg's splints 4 by 3 inches wide with a tenon 5 inches long projecting on each side, to allow separation. Two hooks and screws are used for extension.

410 J. H. Packard. When the two fragments can be apposed and kept so by their serrations, in such cases there will be no shortening, otherwise shortening is unavoidable. 411 Dupuytren, Cooper and Bell used the double inclined plane for the limb; the weight of the body to act as an extending force.

411 Desault used the long splint with extending and counterextending bands. Dr. Physick extended Desault's splint up to the axilla; thus corresponding the counterextension in the line of the femur. 413 The femoral muscles make up nearly half of the muscular structures of the body. The extending and counterextending bands cannot be borne long enough to effect a cure without shortening: the remedy is in the Adhesive plaster extension and counterextension bands. (David Gilbert.) By these means the pressure may be extended over a hundred square inches instead of 8 inches by the old band. T. H. Hamilton recommended it for extension in 1857. The adhesive plaster may be used advantageously instead of the common roller. For counterextension the pelvis may be girded with a broad band of plaster and to this the other bands may be fastened. If it is necessary to have the bands strong two may be run together over a heated surface.

418 The fracture bed is made of 4 pieces of plank 4 inches

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wide, $1\frac{1}{2}$ inches thick covered with stout ticking, having a hole in the centre. The water may be passed into a flat bottle. 422 A fracture box may be made with 3 pieces on each side, the middle one hinged to allow inspection. 423 Strips of plaster may be from $1\frac{1}{2}$ inches by 2 feet in length to two inches wide and 18 inches long. (1858, 108 D. G.) 1865 vol. 2, page 245. De Morgan. The leg is covered with a splice of wadding, over this a roller is applied this is glued and a second roller then again glued and a third roller applied. The glue is first soaked for some hours, then melted in a little water and one fifth of Alcohol added. After 24 hours the glued bandage is cut and the eyelets put in. 247 The whites of 8 eggs to 8 oz. of flour are used for fastening the bandage. Taylor's lint is molded wet to the leg, before applying the rollers. Chamois may be pasted inside the finished splint. 1869, vol. 1, page 377. Starched bandages used over the limb and splints. 2 months after union had taken place, shortening went on to the extent of 2 inches. 1869, v. 2, p. 400. Phillips applied 25 pounds for extension of fracture of the neck of the femur, and 9 pounds latterally to bring the cervics to its natural length.

1872, v. 2, p. 112. Montgomery, using adhesive plaster extension equal to 18 pounds, raised the bed ten inches so as to have the body act as a counterextending weight. A fractured thigh will move more readily at the hipjoint than at the seat of the fraoture. $1\frac{1}{4}$ inches lapping could not be reduced by the efforts of 4 men after death over a pully, equal to 1,000 lbs. 1874 v. 1, p. 362. Suspension of the leg from an anterior splint to an upright post or from the ceiling. 364 Side splints should not extend to the neighboring joints. Adhesive strips may have a piece of wood folded in at the free end.

1874, v. 2 p. 578. Frank Hamilton thinks the plaster of paris and other immovable apparatus opjec-

tionable in fracture of the femur and prefers side splints, adhesive plaster extensionbands, pully and weight, and 579 thinks them superior to the double inclined plane, to Desault's, Hagedorn's, Gibson's, Boyer's and other long splints. 1875, v. 2, p. 549. The perineal band may be dispensed with by tilting up the bed 10 inches at the foot and making the body the extending weight. (The body may be fixed to the bedframe by extending bands. S.)

Ferguson's Surgery. 310 The upper fragment passes generally over the lower, but may go in any direction. Reduction of the fragments is generally of easy accomplishment, but when there has been much effusion of blood 8 or 10 days may pass by, before fragment may be coapted. Desault's splint is superior to others, and Dr. Kimball used adhesive extension bands with it.

In the middle period of life the fracture takes place more frequently at the upper third in old age at the neck of the femur. 314 If the fracture is within the capsule it will never unite by bone except once in 225 cases. (A. Cooper.) In age the bones being more brittle and cellular, and in females the width of pelvis accounts for the frequency.

Gross Surgery, v. 1, p. 949. The femur is most frequently broken at the junction of the upper fourth, next at its middle and then at its lower fourth. When at the upper fourth the fracture is nearly always oblique, the upper fragment overriding the lower in front 9 times out of 10, and 6 times it was also to the outside. The angle of fracture is generally at 45 degrees. The other fractures of the shaft comport themselves in a similar way. The treatment should be in a straight position by extension and counterextension.

953 Jenk's fracturebed!— 354 Dr. Gross used a frac-

ture box with a perineal splint well cushioned. A broad leather or binder's broad splint is applied to the front of the leg. 355 L. Hodge fastens the counterextending bands to the chest and has an iron hook screwed on the long splint making the extension. 355 Smith's anterior splint is made of iron wire the size of a No. 10 bougie (with loops for suspension) bent in the shape of a parallelogram at suitable angles. 957 Gurdon Buck uses adhesive plaster bands, weight, and pulley, short splints and an indiarubber tube of an inch in calibre stuffed with bran or wadding, also sand and bran bags. Dr. Swinburn uses no splint but Buck's perineal band, or adhesive strips to pelvis, and adhesive extension strips.

958 Gross. Prevent the tilting of the fragment by pressure, watch the length of the leg, have the limb slightly everted, tend to the heel. Use adhesive plaster for extension, discard the gaiter and handkerchief. The starch bandage may be used after the third week. Chas. Bell employs the double inclined plane and binder's board softened in warm water moulded in two halves to the leg, meeting at the top. McIntyre's splint is also a double inclined plane movable with screws. Union takes place from the 28th to the 36th day. From $\frac{1}{3}$ to $\frac{1}{2}$ an inch of shortening is generally looked for.

Braithwaite's Epitome.

1,720 Comminuted fractures are best treated with constant irrigation and the starched bandages. 722 The neck of the femur when fractured, as also the patella unite by ligament. Ankylosis is often the result of keeping the joints immovable too long a time. 724 If there is great tumefaction it is wrong to apply the splints and tight bandages. 727 Mr. Lonsdale uses for infants an anterior and a posterior splint made of sheet iron, bent to a half bent position of the limb. 729 Tenotomy is sometimes useful. 730 In fracture of the neck of the

femur, flattening of the nates is the diagnostic sign. 731 In gunshot fracture of the thigh 36 died out of 43 when amputation was not performed.

734 Gutta percha may be formed into splints. 738 The starched bandage is made by tightly rolling it in a thick solution of starch. First a dry roller is applied, then pasteboard splints on each side of the limb, not embracing the joints to prevent stiffness, and the starched bandage over it. 739 The plaster of paris bandage is made by rubbing dry plaster into the bandage, and is applied slightly wetted, and when on, each turn is thoroughly wetted.

Braithwaite's Retrospect.

1864, v. 49, p 78. Bickersteth proposed to drill holes into the ends of ununited fractures, leaving the drills in. Skey treats fractures of the leg by tying a pillow around it.

1862, v 45 p 252. Evans used a bar of iron 1 inch wide and 1 quarter of an inch thick properly bent.

1863, v 47, p 118. E. James, gave 20 m. of dilute phosphoric acid for 2 months for ununited fractures of the thigh after 17 months ineffectual treatment.

1866, v 54, p 202. Prof. Schuh of Vienna uses liquid glass for stiffening bandages, which dry in 8 hours.

1865, v 51, p 120. Fixed apparatus. Starch is used in two thirds of the British hospitals, Gum and chalk in one fifth and Plaster of paris in one fifteenth.

There is risk from the starch bandage in causing constriction when used right away.

J. Tuffnel prefers the whites of 8 eggs and 8 ounces of flour, moulds at first a layer of wet Lint to the limb and next applies the smeared fabric in tails longitudinally: 123 Gum arabic and chalk equal 2 parts or 2 parts of chalk are next best. First, a layer of wadding is applied. 124 For the starch bandage have the paste as thick as it may be worked; apply first a layer of cotton wool, and

make use of pasteboard splints softened in water. 125 The Plaster of paris is rubbed into the bandage dry, or a moistened roller is rolled through a Plaster of paris batter, and when applied a thick layer of plaster is put on. An assistant holds the limb till the plaster sets. Gum, glue and dextrine are not often used.

126 Use longitudinal strips, make the splints in two halves, or if whole, the imbricated bandage. Gum and chalk or flour and albumen are preferable to starch, because drying quicker.

1868, v 56, p 129. H. Worthington attaches a door-spring to the sides of Physick's splint fitted with pulleys over which the extension and perineal bands pass to be fastened to the spring. The limb will come to its proper length in a few days if not immediately and as the limb lengthens the spring will shorten, thus there is a graduation of the extension. (Which is not the case with weight and pulley. S.) v 56, p 84. Buck's treatment is by weight and pulley and tipping up the foot of the bed 4 inches. Render the fractured limb a crustacean until the vertebral skeleton is repaired.

1866, v 53, p 130. Leatherfelt splints are recommended, the felt to be washed with a (probable) solution of water-glass. 131 Gutta percha splints are recommended.

Halfyearly Abstract. 1868, v 47, p 194. John Erichson favors the starched bandage in fractured femur. He applies first a heavy layer of cotton wadding to act as a buffer and then the bandage and pasteboard splints, fixing the approximate joints. Sometimes he finds the long splint serviceable for the first 10 days to get a good length. After a fortnight the patient may walk on crutches. 1870 v 51. T. Nunn. 239 Recommends extreme watchfulness during the third and fourth weeks of splintering, so that no shortening may occur. 1870 S. Gamgee thinks a simple fracture with much bruising, worse than a fracture with a simple wound. He divides fractures into the simple and complicated. He recommends immediate reduction, retention, compression and immobilising the neighboring joints.

V. 55, p 164. The Bavarian apparatus is constructed of 2 pieces of flannel cut a little larger than the broken bone, sewn together at the middle line, to be apposed to the back part of the leg. The first piece of flannel is

pinned around with bent pins so that they may be taken out and 1 lb of plaster properly mixed is poured on the flannel, and the flannel brought around the leg, steadied by a roller. Extension and counterextension is kept up by assistants until the plaster has hardened.

237 Gueniot, constructed for an infant with fractured thigh, a splint of Gutta percha embracing the anterior $\frac{2}{3}$ of the width of the pelvis and the antero-external three fifths of the thigh.

1872, v 56, p 106. Worthington glues at first the roller (some days applied.) cut open, to the leg, and then glues on strips of paper. A small line at the calf of the leg is left open. When dry the extension splints are removed. 161 Dr. Labbe applied plaster to the leg while extension and counterextension was being made till the plaster had hardened.

Scientific American.

1866, p 255. M. M. Latta applies to the fractured thigh a splint encircling the same and to this is fastened a rod passing by means of nuts through a crosspiece below, for the purpose of counterextension, the extension is made with adhesive straps to the foot and crosspiece (which is fastened to the bed) and a spring scales interposed to measure the extension. The length of the leg is measured by a perineal crotch. If need be the counterextension is made from the sound limb.

Sam. Cooper's Surgical Dictionary.

397 Desault treats fracture of the femur in the dorsal and straight position, applies one long splint to the outside and one to the inside of the leg and a short anterior splint to the femur. The roller is first applied for the purpose of compressing the muscles. Mr. Pott advocates the semiflexed and lateral position with 2 or 4 splints to the femur without fixing the joints, and places great importance on the relaxation of the muscles by position (and this may be so when those muscles are relaxed as to produce deformity even if others are put on the stretch by posture. Scholl.)

The patient should be placed on a matress so that the hips are not liable to sink. 398 A power applied for a longer time will accomplish, as exemplified in the reduction of dislocations, what a much greater force for a

short time applied was unable to accomplish.

Fractures of the patella and olecranon prove the utility of muscular compression. In transverse fracture splints and compresses will be sufficient, but this is not the case when the fracture is oblique, permanent extension becomes then necessary.

Beach's American Practice.

496 Construct a double inclined plane, hinged or not, from wood, tin or pasteboard. No extension used. Knee is to be turned slightly outward. St. Louis Medical and Surgical Journal 1859, p 374. Chassaignac applies immediately plaster of paris with a bandage, next day divides it circularly, extending the limb and applies another bandage with plaster. Splints are also used. American Journal of Medical Sciences. 1758, p 394. Henry Hartshorne uses two long splints. The inside one with a fork to press against the ischii. Extension by adhesive plaster.

Cases of fracture of the Thigh treated by Dr. J. T. Scholl.

1. Miss John L. Nehf at 11 years of age was kicked by a cow and a fracture of the upper third of the right femur resulted. This may have been in the year 1863. Extension was made by adhesive straps and counterextension at first by an india rubber half inch tube, this causing excoriation, plaster was used also for counterextension. A long splint and bran bags and 4 short splints completed the apparatus.

She was confined 6 weeks. The condition of the limb was perfect.

2. Jacob Kronenberg in 1865 broke the middle of his right thigh. A double inclined plane and short splints were used. Leg perfect.

3. F. Schaumberger at 12, 75 Nov 15 broke his right thigh in the middle, no shortening. Adhesive plaster extension and counterextension were used for a week and lastly a pasteboard splint of my own construction made by cutting longitudinal grooves into the pasteboard and bending it fanningmill fashion to receive the leg. This is the most satisfactory splint what can be used for all fractures especially if fastened with elastic bands. In all cases a fracture bed was made of stout ticking as described by Dr. Gilbert. In 6 weeks the cure was perfect. The fractured clavicle was treated with adhesive plaster.

433) Perivascular canals denied. Sensory Centres in the convolutions. Destruction or ablation (Frier) of the 434) Optic Thalamus causes loss of Sensation) opposite side, Angular Gyrus, opposite blindness, Gray matter of convolution bounding the fissure of Rolando; opposite voluntary motion paralysis. Superior Temporo-Sphenoidal convolution annihilates audition.

Hypocampus Major annihilates opposite touch. Cornu Ammonis, the sense of smell. Lower part of Temporo-Sphenoidal Lobe; taste. Occipital Lobe does not abolish voluntary motion but causes depression. 433 Frontal Lobe, paralyzes intelligence and attention (What the frontal lobe is to intellectual life that is the occipital lobe to emotional life. S.) 434 The action of Carbonic acid on the plasma coagulates the blood. Chlorides retard. 435 Bile producers are podophyllin, aloes, rhubarb and colchicum. Gamboge, calomel and Alcohol are not. 436) Digitalis, hysteria, incipient Bright's disease and cold will produce watery diuresis from the glomeruli through increased blood pressure while Potash and low blood pressure cause an histological heavy urine to be secreted in the vasa recta.

439) Bromide of camphor 4—60 grains for Epilepsy Nitric acid best uterine caustic. — 440) Splenic Leukemia cured by 1 fiftieth to 1 thirtieth grain of phosphorus. 441) Nitrite of amyl 3 drops inhaled close to the nose will relieve Congestion of spinal cord as evinced in Seasickness, proved by section of the killed Chinaman.

442) Locomotor Ataxy, $\frac{1}{2}$ gr. doses night and morning of Nitrate of silver for six weeks.

Epilepsy peripheric, by injury to the sciatic nerves at the nates by a shell. (8 months after.) 444 Clouston supposes a sleep centre of the brain acting instantly in case of the girl that fell asleep while walking, could

sleep for three days, not arousable by shaking, having choreic twitchings when awake, (I think there may rather be a waking centre or all the centres when active may constitute this waking centre and only when their influence is cut off by disease from consciousness that sleep follows. Scholl.) 444 Rhythmic convulsive movements of the shoulder due to softening of 4-5 inch of the cervical enlargement of the spinal chord. 446 Hysteria in the male unconnected with disease of the organs of generation, so in the female often uncombined with uterine disease, or as Grisolles observed with absence of the uterus. More frequent in females because of their affective nature. Gloomy emotions and the passions predispose to it. 447 Meniere's disease is a disease of the labyrinth Deafness, Vertigo and Tinnitus

447 If Vertigo is absent, it is a disease of the middle ear. When deafness is absent, disease of middle ear and cerebral congestion. — 448 Autumnal catarrh or hay fever returns yearly, may be escaped by flight to higher regions, sneezing best relieved by spray of a saturated solution of quinine without acid, also quinine internally. Borax 3 gr. to 1 ounce of camphor water for eyes. For the asthma smoke Stramonium leaves 3 parts with 1 part of nitre. 451 Eucalyptus tincture is effective when carbolic acid fails in removing foetor in gangrene of the lungs. 452 Presystolic murmur, is auricular systolic in its nature, owing to high blood pressure in the pulmonary veins. 453 A person was attacked with violent precordial pain, Dyspnoea, pulse 228, sweating. Probably due to paresis of the sympathetic nerve Dilatation of the bloodvessels following, determining a low blood pressure and thus want of proper stimulus to the centre of the pneumogastric nerve. (It may be that certain nervous centres require a certain degree of blood pressure, does it fall below this, then the function of the centre is interrupted. S.) — 453

Dissecting aneurisms of the aorta have their seat between middle and outer coats. —

454 Embolic aneurism is caused by the vegetations on the aortic valves of endocarditis, breaking loose and causing pressure and necrosis of the vascular wall and hemorrhage. Cardiac aneurism may also be caused by pressure of vegetations on the valves. 455 Bloodletting every 3 weeks till 80 years of age dyspnoea from blood stasis relieved immediatly. 455 In Tabetic arthritis the bones appear as if ground down.

456 Wounds are best treated with Liq. plumb diaceticis; Alcohol $1\frac{1}{2}$ fl. ounces and 14 ounces of water. Remove blood effectually from wound, rather wait an hour or two. — 457 In actual necrosis separate the periosteum which will reproduce the bone. 459 Purulent ophthalmia when caused by inoculation from genitals will be acute, when from eye to eye chronic, may by invading the cornea destroy the eye, cause trichiasis and ectropium. 471 Syphilis. When foetus affected there is a red band between the epiphysis, osteochondrites. If the placenta is affected from the father's side, the villi are principally touched, if from the mother's side the maternal placenta. 473 Puerperal fever is septicemia, autogenic from putrid (placental) remains, or communicated. 475 Chloral 30 grs. in Solution subcutaneously injected in tetanus. —

482 The white blood corpuscles arise from the fixed connective tissue cells and in virtue of their amoeboid movement are able to pass the walls of the capillaries independant of blood pressure, which is not the case with the red bloodcell which transutes in virtue of intravascular blood-pressure and is unable to regain its normal shape, and if then encountered by a white cell is swallowed and the whole converted into a pigment cell. 483 Salicylate of Quinia 3 grs. internally. 484 Taenia. Half an ounce of the membrane covering the embryo, as well as half an

ounce of the fixed oil of pumpkin seed, expelled the worm.

— Insignificant irritation may cause convulsions, as worms in the bowels. — Actual cautery to be applied near to the seat of pain in Neuralgia, Locomotor ataxy, epilepsy and coma. 487 Diabetes Insipidus, 400 — 500 ounces per day, no albumen, is a neurosis. Jaborandi useful.

489 Acute Rheumatism cured by Tincture perchloride of iron 15 minims to one drachm every 4 hours. 493 Typhoid and Typhus fever. The brain after death shows marks of inflammation affecting the blood vessels, neuroglia and ganglion cells. In typhus, nodules resembling tubercles are found in the cortical portion of the brain. 495 Ergotine $1\frac{1}{2}$ grs. in glycerine and spirits subcutaneously injected in a c u t e m a n i a. 496 Sclerosis of the nervous system. Double atrophy of the retina and abnormal hysteria, which latter is frequently the sign of a true cerebral lesion, precede the sclerosis or contractions of the neuroglia. Where a patient had vomiting and lesion of vision, a tottering gate, cerebellar sclerosis was diagnosed. 497 Amyl nitrate useful in anemic facial neuralgia. 498 Vertigo, has an analogy to Addison's disease. 499 Auscultation of the Oesophagus. While the patient is swallowing, the stethoscope is to be placed over the trachea in front and over the back behind. If dilatation is present the food passes in a trickling manner, if contraction is present the morsel is arrested at that place and becomes prolonged. If the dyspepsia is nervous the stethoscope detects no lesion. 501 Whooping cough is an exanthem of the mucous membrane:

502 Dienlafoy's apparatus used to abstract 21 ounces of putrid fluid from the pleura. 503 Pleurisy of one entire pleura is more often tubercular than idiopathic. 504 Dienlafoy's apparatus employed for abstracting the effusion in the pericardium. Recovery after 6 months. 505 Chronic Aortitis, sometimes evidenced by Argina Pectoris